# LAMINATED VENEER LUMBER



LVL PLYWOOD – The core is made of wood such as Eucalyptus, Acacia with a uniform structure that gives the product high aesthetics.

Along with the outstanding durability and bearing capacity, this high-strength engineered wood product is mostly used primarily for structural applications such as beams, formworks, rafters, door frame, floor, wall...





## EN 14374:2004

Timber structures - Structural laminated veneer lumber standard



WOOD LINE LVL

#### Wood materials

Vietnam hardwood from legally sourced plantation wood Core veneer: Eucalyptus, Acacia, Rubberwood, or mix as request

#### Density

650 - 700 kg/m<sup>3</sup> (depend on core veneer wood species)

#### Size

Length: Maximum 6,000 mm Width: Maximum 610 mm Thickness: Maximum 100 mm

#### Glue

MR - Moisture resistance (can be added with Melamine) WBP - Water Boiling Proof Phenolic Glue With E2, E1, E0 standard

Moisture Content Less than 15%

#### Packing

Panels are packed in crates with metal/plastic straps, suitable for loading/unloading by forklifts

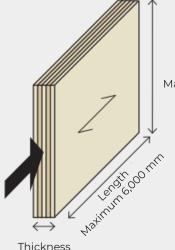


### WOOD LINE LVL

LVL is a wood-based panel similar to plywood, except all of the veneer layers are arranged in the same direction to each other (all veneer layers are glued together longitudinally)

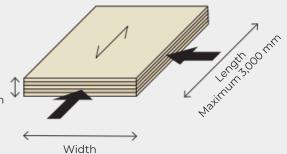
## WOOD LINE LVB

LVB can be layered inside vertically, two layers outside horizontally, or randomly placed horizontal, vertical. Which means that ca. one-fifth of the veneers are glued crosswise – improving the lateral bending strength and stiffness of the joist



Width Maximum 610 mm

> Thickness Maximum 100mm



Width Maximum 1,250 mm

Thickness Maximum 100 mm



WOOD LINE *LVL* is used for the construction with high load bearing such as beams, pillars, flooring structures...



WOOD LINE  $\ensuremath{\textit{LVB}}$  could be used for pre-assembled floor cassettes of roofing

# **DECLARE OF PERFORMANCE**



LAMINATED VENEER LUMBER TECHNICAL PARAMETERS - 72 HOURS WBP GRAD				
SR. NO.	PARTICULARS	REFERENCE	UOM	MIN. PERFORMANCE
1	DENSITY		KGS/M3	600+ KGS/M3
2	THICKNESS TOLERANCE	IS 4990	MM	+/- 0.3 mm
3	SURFACE QUALITY			NO DENTS, NO IMPRESSIONS AND NO JOINT MARKS
4	72 BOILING WATER TEST	IS 4990		NO DE-PLY OR DE-VENEERING
5	LENGTH TOLERANCES	IS 4990		+/- 6 MM
6	WIDTH TOLERANCES	IS 4990		+/- 3 MM
7	EDGE STRAIGHTNESS	IS 4990		2 MM/1000 MM or 0.2 %
8	SQUARENESS	IS 4990		2 MM/1000 MM or 0.2 %
9	MYCOLOGICAL TEST	IS 14616		Should not Show any appreciable signs of separation at the edges of the veneers
10	MODULUS OF ELASTICITY	IS 14616	N/MM2	MIN. 7500 N/MM2
11	MODULUS OF RUPTURE	IS 14616	N/MM2	MIN. 50 N/MM2
12	COMPRESSIVE STRENGTH PARALLEL TO GRAIN	IS 14616	N/MM2	MIN. 35 N/MM2
13	COMPRESSIVE STRENGTH PARALLEL TO GRAIN	IS 14616		
	PARALLEL TO LAMINAE		N/MM2	MIN. 35 N/MM2
	PERPENDICULAR TO LAMINAE		N/MM2	MIN. 50 N/MM2
14	HORIZONTAL SHEAR	IS 14616		
	PARALLEL TO LAMINAE		N/MM2	MIN. 6 N/MM2
	PERPENDICULAR TO LAMINAE		N/MM2	MIN. 8 N/MM2
15	TENSILE STRENGTH PARALLEL TO GRAIN	IS 14616	N/MM2	55
16	<b>RESIN USED</b>			PHENOL FORMALDEHYDE
17	APPLICATION OF RESIN			ON BOTH SIDES OF CORE VENEER
				EDGE - 2300 N
18	SCREW HOLDING POWER	IS 14616	Ν	FACE - 2700 N
19	THICKNESS SWELLING (2 HOURS WATER SOAKING)	IS 14616	% GE	MAX 3%
20	WARPING	IS 14616	ММ	NOT EXCEEDING 1.5 MM PER 1000 MM LENGTH
21	RESIN USED			PHENOL FORMALDEHYDE
22	APPLICATION OF RESIN			ON BOTH SIDES OF CORE VENEER
23	MOISTURE CONTENT	IS 14616	% GE	5 TO 15%
24	THICKNESS OF VENEER		MM	VARYING BETWEEN 1.8 MM TO 2.25 MM
25	DELAMINATION AFTER CUTTING			NO DELAMINATION ALLOWED
26	USAGE OF METAL PINS/STAPLES			NO METAL PINS/STAPLES TO BE USED IN PRODUCTION
27	GAPS IN VENEER PLYS			NO AIR GAPS ALLOWED

This is internal report by Wood Line